

The Nuclear Challenge

Herein you will find:

- List of participants (with corresponding number)
- Weekly program
- Reading list
- Distribution of texts
- Optional reading assignments
- Assignment of optional reading texts 3, 14, 36 and 41
- List of videos
- An example of a commentary on an optional reading text

The weekly program identifies the required reading (for all participants), optional texts (for some participants) and the assigned videos.

To simplify the distribution of texts each participant has been assigned a number:

Participants

- 1.**
- 2.**
- 3.**
- 4.**
- 5.**
- 6.**
- 7.**
- 8.**
- 9.**
- 10.**
- 11.**
- 12.**
- 13.**
- 14.**
- 15.**
- 16.**
- 17.**

PROGRAM

	<i>Date</i>	Subject	Required reading	Optional reading*	Video**
1	6 <i>Feb</i>	<i>Familiarization with the platform</i>			
2	13 <i>Feb</i>	<i>Organization, objectives and introduction</i> Disarmament and international security: definition of concepts Nation-state; Codes of conduct; UN Charter 20 th century: weapons of mass destruction (the case of Iraq as an example) Time frame, 1899-2011: six stages 1) 1899-1945, from The Hague to San Francisco 2) 1945-1948, the UN, disarmament and international security 3) 1948-1960, the Cold War, and the creation of parallel security structures 4) 1961-1978, the different disarmament fora 5) 1979-1989, a pause 6) 1989- , a supposedly new international order	1		[8]
3	20 <i>Feb</i>	<i>Until 1945 and something more</i> The dawn of the nuclear age	2, 4, 6, 7, 8	3, 5	1
4	27 <i>Feb</i>	<i>Vertical proliferation</i> Four stages: 1945-1949; 1950-1968; 1968-1995; since 1995 Two key years: 1945 and 1950 The principal players: USA, USSR, UK, France and China And others: Canada, Sweden, India, Pakistan, DPRK, Israel, South Africa, Argentina and Brasil Nuclear testing, nuclear energy; uranium, enriched uranium and plutonium The NPT	9, 13	10, 11, 12	2, [3], [4], 5
5	5 <i>Mar</i>	<i>The UN and multilateral agreements</i> The resolutions of the UN General Assembly on nuclear disarmament	15, 17, 18, 19, 20	14, [16]	9
6	12 <i>Mar</i>	<i>Horizontal proliferation</i> The Treaty of Tlatelolco	21, 24, 25, 27, 28, 29,	22, 23, 26, [31]	6
7	19 <i>Mar</i>		30		
8	26 <i>Mar</i>	The legality of nuclear weapons The elimination of nuclear weapons	33	32, 34, 35, 36	[10]
9	2 <i>Apr</i>	<i>The present situation</i> Nuclear disarmament proposals Nuclear energy	37, 38, 39, 40, 49, 50,	41, 42, 43, 44, 45, 46, 47, 48, 52, 54, 56, 58, 59, [60], [63]	7
10	9 <i>Apr</i>		51, 53, 55, 57, 61, 62, 64, 65		

* These texts are assigned to some participants (see page 8). "Other" texts in brackets []

** The video numbers in brackets [] are optional.

READING LIST
Texts 1-65

1	Some reading for the first day	1
	<ul style="list-style-type: none"> 1. George Orwell, “You and the Atomic Bomb” (page 2); 2. The concept of proportionality in war (4); 3. “A Nucleated Century” (5); 4. Dr. Louise Reiss, Who Helped Ban Atomic Testing, Dies at 90 (6); 5. Konrad Dannenberg, 96, top rocket scientist, dies (8); 6. Samuel T. Cohen, Neutron Bomb Inventor, Dies at 89 (9); 7. The nuclear industry (12); 8. KEPCO wins a nuclear contract (14); 9. Nuclear power in the Nordic countries (15); 10. Latin America warms up to nuclear expansion (16); 11. Vermont Senate votes to close nuclear plant (18); 12. Palomares: A forgotten accident? (21); 13. Reactions to the nuclear accident in Japan, 2011 (21); 14. Should nuclear fuels be taken out of national hands? (21); 15. Pakistan frees A. Q. Khan (24); 16. The proliferation business (27); 17. Leonardo Mascheroni (28); 18. So let’s say Iran gets the bomb... (32); 19. Nuclear submarines collide (34); and 20. Majority supports use of atomic bomb on Japan in WWII (36). 	
2	Diana Preston, <i>Before the Fall-Out</i>	39
3	Two decisions, 1945 and 1950: The first use and the H Bomb (memoirs)	44
	By way of introduction: The Québec Agreement of 1943 (pages 45-46); <ul style="list-style-type: none"> 1. Harry S. Truman, <i>Memoirs: Vol. I, Year of Decisions (1945)</i>. (46-55); 2. Harry S. Truman, <i>Memoirs: Vol. II, Years of Trial and Hope (1946-1952)</i> (55-66); 3. Winston S. Churchill, <i>Triumph and Tragedy</i>, Vol. VI of <i>The Second World War</i> (66-71); 4. Bernard M. Baruch, <i>Baruch: The Public Years</i>, Vol. II of <i>My Own Story</i> (72-84); 5. James F. Byrnes, <i>Speaking Frankly</i> (85-99); 6. Clement R. Attlee, <i>As It Happened: The Autobiography of</i>, (99-100); 7. George F. Kennan, <i>Memoirs, 1925-1950</i> (100-103); 8. Dean Acheson, <i>Present at the Creation: My Years in the State Department</i> (103-111); and 9. Lord Gladwyn, <i>The Memoirs of</i> (112-116). 	
4	The Use of Atomic Bombs Against Japan (extract from Andrew Roberts, <i>The Storm of War</i>)	117
5	J. Robert Oppenheimer (review of four books on)	121
6	Joseph Rotblat, “Leaving the bomb project”	135
7	Dan Dubno, “A.Q. Khan and the Oath Not Taken”	141
8	Code of Ethics (2003): Code of Ethics of the Argentine Physical Society	144
9	Nuclear weapons and fissile materials	146
	<ul style="list-style-type: none"> 1. Article on fissile materials in nuclear weapons (page 146); 2. Global nuclear stockpiles, 1945-2002 (with a chart by year) (148); 3. Graph of nuclear weapons deployed in 1995 (152); 4. Graph on plutonium (153); and 5. Status of world nuclear forces in February 2011 (154). 	
10	Effects of the possible use of nuclear weapons (UN study)	156
11	US admits years of atomic radiation tests on people	160
12	Nuclear human experiments	163
13	David Krieger and Angela McCracken, “Ten Myths About Nuclear Weapons”	170

Syllabus
3 February 2012

14	United Nations General Assembly resolutions on nuclear disarmament	174
15	Text (abridged) of the PTBT	177
16	NPT Tutorial: History — The Beginnings	178
17	Text of the Treaty on the non-proliferation of nuclear weapons (1968)	180
18	Text (abridged) of the CTBT	185
19	U.S. accidentally releases list of nuclear sites	192
20	The National Ignition Facility	194
21	Atoms for peace (Eisenhower speech,1953)	196
22	Article by David Vital on the NPT	202
23	Article by Jaswant Singh, “Against Nuclear <i>Apartheid</i> ”	214
24	Evolution of the international reaction to the nuclear tests by India and Pakistan: Three steps	221
25	Agreement between the United States and India on nuclear questions	226
	1. Zia Mian and M. V. Ramana, “Wrong Ends, Means, and Needs: Behind the U.S. Nuclear Deal With India” (page 226);	
	2. Arms Control Association, “India’s Choice, Congress’ Responsibility” (235);	
	3. Congress Approves India Nuclear Bill (235); and	
	4. Bush signs US-India nuclear bill (237).	
26	Review of <i>Secrets of the Bomb</i>	238
27	Text of the Treaty of Tlatelolco	248
28	The Treaty of Tlatelolco: A Background Note	261
29	The Treaty of Tlatelolco: List of United Nations General Assembly resolutions	268
30	José Goldemberg, “Giving Up Nuclear Weapons: Lessons Learned From The Past”	271
31	The Treaty of Tlatelolco turns forty (two articles by MMB)	273
32	Bertrand Russell: Some thoughts and the birth of the Pugwash Movement	277
33	The Russell-Einstein Manifesto	299
34	Rebecca Johnson, “Eliminating Nuclear Weapons: the International Debate”	302
35	Article by Josef Goldblat on the legality of nuclear weapons	313
36	Advisory opinion of the International Court of Justice on nuclear weapons	319
37	Some issues regarding the peaceful uses of nuclear energy	342
	1. The dismantling of the <i>Superphénix</i> nuclear reactor (page 342);	
	2. Russia to Finish Iranian Reactor (342);	
	3. Caribbean anger at nuclear cargo (343);	
	4. Ten Bundesliga matches postponed because of nuclear waste transport (344); and	
	5. New Zealand’s ban of nuclear-powered ships (344).	
38	What is depleted uranium?	347
39	Michael E. Long, “Half Life: The Lethal Legacy of America’s Nuclear Waste”	349
40	Four texts from the World Nuclear Association	350
	1. Nuclear Power in the World Today	
	2. World Nuclear Power Reactors and Uranium Requirements	
	3. Nuclear share figures, 1999-2009	

4. Nuclear-Powered Ships

41	Accidents at nuclear power plants: readings online	365
42	Reagan-Gorbachov transcripts, Reykjavik, Iceland, October 11-16, 1986	366
43	Newspaper clippings and reports from 1997 and 1998	372
	1. Yeltsin in Paris to sign NATO agreement (page 372);	
	2. <i>International Herald Tribune</i> , 13 January 1998, “New Nuclear Danger” (373);	
	3. <i>Financial Times</i> , 5 February 1998, “Plutonium supply to rise” (373);	
	4. IEER Recommendations on Plutonium Management (374); and	
	5. <i>International Herald Tribune</i> , 6 February 1998, “ <i>Seoul Backpedals on Nuclear Pact: Funds Are Lacking for Reactors for the North, U.S. Is Told</i> ” (376).	
44	Review of the book <i>Reagan’s Rebellion</i> by James Mann (2009)	378
45	George Perkovich, “Bush’s Nuclear Revolution: A Regime Change in Non-proliferation” (2003)	380
46	Resolution 1540 (2004) of the UN Security Council	385
47	A Change of Heart?	388
	1. General Lee Butler’s Speech and His Joint Statement with General Goodpaster (1996) (page 388);	
	2. Two texts (published in 2007 and 2008, respectively) signed by George P. Shultz, William J. Perry, Henry A. Kissinger and Sam Nunn (392);	
	3. “Containing the fire of the gods” by Henry A. Kissinger (February 6, 2009) (398);	
	4. Miguel Marín Bosch, “¿Metamorfosis <i>orwelliana</i> ?” (18 January 2007) (401); and	
	5. Robert McNamara (two notes) 403).	
48	Deterrence Revisited	414
	1. “Ten Serious Flaws in Nuclear Deterrence Theory,” by David Krieger (page 414);	
	2. “Deterrence in the Age of Nuclear Proliferation,” signed by George P. Shultz, William J. Perry, Henry A. Kissinger and Sam Nunn (418); and	
	3. “Nuclear Deterrence: impeding nuclear disarmament,” by David Krieger (420).	
49	Thérèse Delpech, “What Future for Nuclear Weapons?” (1994)	423
50	Ban Ki-moon, “The UN and security in a nuclear-weapon-free world” (2008)	426
51	Rebecca Johnson, “Nuclear Weapons Treaty: An Idea whose Time Has Come” (2008)	431
52	The United Kingdom and Nuclear Weapons	433
	1. UK does not need a Nuclear Deterrent (page 433); and	
	2. Lifting the Nuclear Shadow (434).	
53	Daryl G. Kimball, “Reset Nuclear Arms Negotiations Now” (2009)	436
54	<i>Reactions to President Obama’s Position on Nuclear Weapons</i>	438
	1. Top U.S. General Spurns Obama Pledge to Reduce Nuclear Alert Posture (page 438);	
	2. Arms control’s dangerous allure (440); and	
	3. France rejects White House nuclear disarmament proposals (442).	
55	The case of the Democratic Peoples’ Republic of Korea	444
	1. “United in Defiance” (article in <i>The Economist</i> , 2009) (page 444);	
	2. Miguel Marín Bosch, “Testing ... one, two, three ... testing” (447); and	
	3. Resolution 1874 of the UN Security Council, 12 June 2009 (448).	
56	“International calls for Nuclear Disarmament gather momentum” (2009)	454
57	“And now for a nuclear remake”, <i>The Economist</i> , March 12th 2009	455

Syllabus
3 February 2012

58	Summary of UN Security Council Summit of 24 September 2009	457
59	Resolution 1887 of the UN Security Council, 24 September 2009	467
60	Miguel Marín Bosch, “A Nuclear-Weapons-Free-World: Is It Achievable?” (2009)	472
61	“Toward a world without nuclear weapons,” Jean Chrétien, Joe Clark, Ed Broadbent and Lloyd Axworthy (2010)	477
62	New START Treaty (two newspaper clippings, a chart and two comments)	478
	1. United States and Russia Nuclear History Chart (page 478);	
	2. “Russia and U.S. Sign Nuclear Arms Reduction Pact,” note by Peter Baker in <i>The New York Times</i> , April 8, 2010 (478);	
	3. “Disposal of Plutonium From U.S.-Russian Disarmament Is Likely to Take Decades,” note by Matthew L. Wald in <i>The New York Times</i> , April 8, 2010 (481);	
	4. “A Season for Disarmament,” article by Hans Blix, I.H.T., April 4, 2010 (483);	
	5. “Talking points on the Prague Treaty (a few critical remarks),” text by Jozef Goldblat distributed among members of the Pugwash Movement, 8 April 2010 (485); and	
	6. “The Next Treaties,” editorial, <i>The New York Times</i> , December 31, 2010 (485).	
63	United States’ 2010 Nuclear Posture Review (five newspaper clippings and comments)	487
	1. “Mr. Obama’s Nuclear Policy”, editorial <i>The New York Times</i> , April 6, 2010 (page 487);	
	2. “Nuclear Weapons”, note in <i>The New York Times</i> , April 6, 2010. (488);	
	3. “Nuclear Labs Raise Doubts Over Viability of Arsenals”, note by William J. Broad, <i>The New York Times</i> , March 26, 2010. (490);	
	4. “After Prague, What's Next for Arms Control?”, article by George Perkovich, I.H.T, April 7, 2010 (491); and	
	5. “What Obama's Nuclear Posture Review accomplishes”, article by Joshua Pollack, <i>Bulletin of the Atomic Scientists</i> , 8 April 2010 (493).	
64	Washington Summit on Nuclear Security, 13 April 2010 (Communiqué and three newspaper clippings)	495
	1. Communiqué of the Washington Summit, 13 April 2010 (page 495);	
	2. “Obama Vows Fresh Proliferation Push as Summit Ends”, note by David E. Sanger in <i>The New York Times</i> , April 13, 2010 (496);	
	3. “Cold War Nuclear Fears Now Apply to Terrorists”, note by Scott Shane in <i>The New York Times</i> , April 15, 2010 (499); y	
	4. “Gates Says U.S. Lacks Policy to Curb Iran’s Nuclear Drive”, note by David E. Sanger and Thom Shanker in <i>The New York Times</i> , April 17, 2010 (501).	
65	David Krieger, “On nuclear weapons, ‘silence is indefensible’” (2009)	504

Distribution of texts

The 65 texts listed above have been printed in PDF and included in the compilation. The two volumes of the compilation, together with the Table of Contents, are available online in the Reading Room. You might want to download them and have them printed and bound. The cover of each volume is also available in the Reading Room.

One need not read all of the texts although it would be advisable to do so.

The reading list includes three categories: required, optional and other. Those texts are listed below.

Required	Optional	Other
1, 2, 4, 6, 7, 8, 9, 13, 15, 17, 18, 19, 20, 21, 24, 25, 27, 28, 29, 30, 33, 37, 38, 39, 40, 49, 50, 51, 53, 55, 57, 61, 62, 64, 65,	3, 5, 10, 11, 12, 14, 22, 23, 26, 32, 34, 35, 36, 41, 42, 43, 44, 45, 46, 47, 48, 52, 54, 56, 58, 59,	16, 31, 60, 63,

All participants should read the **required texts** for the class indicated in the program.

The **optional texts** are assigned to different participants who will draft a brief **commentary** which will serve as the basis for a discussion with the other participants. That commentary should be less than 250 words. The two persons charged with the commentary will send it to the other participants who will then discuss it briefly and in writing (150 words). The two assigned to comment the text will submit to us a very short summary of the discussion.

At the end of this document there is an example of a commentary.

The texts identified as “**other**” have been included as further reading for those interested.

Assigned optional texts

Class	Date	Text	Participants	Commentary and summary
3	<i>20 Feb</i>	3	See separate list.	
		5	5, 6, 11	5
4	<i>27 Feb</i>	10	2, 7, 12	2
		11	3, 8, 13	3
		12	4, 10, 14	4
5	<i>5 Mar</i>	14	See separate list.	
6 & 7	<i>12 & 19 Mar</i>	22	5, 7, 16	7
		23	1, 6, 12	12
		26	3, 9, 17	9
8	<i>26 Mar</i>	32	4, 11	11
		34	2, 13, 15	13
		35	1, 7, 14	14
		36	See separate list.	
9 & 10	<i>2 & 9 Apr</i>	41	See separate list.	
		42	5, 9, 17	17
		43	2, 6, 15	6
		44	4, 8, 11	8
		45	3, 10, 16	10
		46	1, 12, 15	15
		47	7, 9, 14	14
		48	2, 10, 17	2
		52	8, 13, 16	16
		54	5, 11, 13	11
		56	4, 9, 12	4
		58	3, 6, 14	3
59	1, 8, 10	1		

Assignment of optional texts 3, 14, 36 and 41

		Text		Pages	Participants	Summary by
3	<i>20 Feb</i>	3	Memoirs			
			Québec Agreement	45-46	All	4
			Truman 1	46-55	3, 11, 13	13
			Truman 2	55-66	8, 9, 15	8
			Churchill	66-71	2, 4, 12	2
			Baruch	72-84	1, 11, 17	1
			Byrnes	85-99	6, 7, 14	6
			Attlee	99-100	3, 5, 12	3
			Kennan	100-103	1, 2, 16	16
			Acheson	103-111	4, 9, 14	4
			Gladwyn	112-116	5, 10, 13	10
5	<i>5 Mar</i>	14	Resolutions*			
			A/RES/66/25, 44 and 61		6, 9, 13, 17	9
			A/RES/66/40, 45 and 51		2, 5, 11, 15	11
			A/RES/66/26, 46 and 57		4, 7, 10, 12, 16	12
			A/RES/66/28, 48 and 64		1, 3, 8, 14	14
8	<i>26 Mar</i>	36	Judges**			
			Bedjaoui		3, 10, 11, 16	16
			Herczegh		7, 8, 14	14
			Jiuyong		1, 8, 9	1
			Vereshchetin		4, 5, 11	11
			Ferrari Bravo		6, 13, 14	6
			Guillaume		6, 7, 13	13
			Ranjeva		5, 12, 13	5
			Fleischhauer		2, 3, 9	9
			Schwebel		2, 9, 10	2
			Oda		1, 2, 8	8
			Shahabuddeen		3, 4, 10	10
			Weeramantry		5, 6, 12, 15	15
			Koroma		1, 7, 14	7
			Higgins		4, 11, 12, 17	12
9	<i>2 Apr</i>	41	Nuclear accidents			
			Three-Mile Island, 1979		2, 5, 9, 12, 14, 16	5
			Chernobyl, 1986		3, 6, 8, 11, 13, 17	17
			Fukushima Daiichi and Daini, 2011		1, 4, 7, 10, 15	7

* For the text of the resolutions go to the UN's web page: www.un.org then Welcome then Main Bodies then General Assembly then resolutions.

** For the complete text of the individual opinions of the judges consult the web page of the Court: www.icj-cij.org and then find them in English or French under "advisory opinion" and then "Legality of the Threat or Use of Nuclear Weapons" of 1996.

VIDEOS

		Length
1	<i>Hiroshima: A Mother's Prayer</i>	30:00
2	BBC, 2002, Bohr & Heisenberg	45:00
3	<i>Copenhagen</i>	90:00
4	<i>Teller's Very Large Bomb</i> (español, 2005)	60:00
5	<i>Why Are Nuclear Weapons Important?</i> The Los Alamos Perspective, The Los Alamos Study Group	10:00
6	BBC TWO, Israel's Secret Weapon, 2004	46:00
7	McNamara, Interview BBC, June 2005	30:00
8	UN, <i>Enough is Enough</i> , 7/25/02	48:53
9	<i>The Strangest Dream: The Story of Joseph Rotblat</i>	89:29
10	<i>Waging Peace: The Story of Joseph Rotblat and 50 Years of The Pugwash Conferences On Science and World Affairs</i> , a film by Hero's Stone Productions in association with The Pugwash Conferences On Science and World Affairs	21:06

Example of a commentary

Here is the text of an article published in *The New York Times* on July 13, 2009 and a comment on it.

OP-ED CONTRIBUTOR

A Flash of Memory

By ISSEY MIYAKE*

Published: July 13, 2009

Tokyo

In April, President Obama pledged to seek peace and security in a world without nuclear weapons. He called for not simply a reduction, but elimination. His words awakened something buried deeply within me, something about which I have until now been reluctant to discuss.

I realized that I have, perhaps now more than ever, a personal and moral responsibility to speak out as one who survived what Mr. Obama called the “flash of light.”

On Aug. 6, 1945, the first atomic bomb was dropped on my hometown, Hiroshima. I was there, and only 7 years old. When I close my eyes, I still see things no one should ever experience: a bright red light, the black cloud soon after, people running in every direction trying desperately to escape — I remember it all. Within three years, my mother died from radiation exposure.

I have never chosen to share my memories or thoughts of that day. I have tried, albeit unsuccessfully, to put them behind me, preferring to think of things that can be created, not destroyed, and that bring beauty and joy. I gravitated toward the field of clothing design, partly because it is a creative format that is modern and optimistic.

I tried never to be defined by my past. I did not want to be labeled “the designer who survived the atomic bomb,” and therefore I have always avoided questions about Hiroshima. They made me uncomfortable.

But now I realize it is a subject that must be discussed if we are ever to rid the world of nuclear weapons. There is a movement in Hiroshima to invite Mr. Obama to Universal Peace Day on Aug. 6 — the annual commemoration of that fateful day. I hope he will accept. My wish is motivated by a desire not to dwell on the past, but rather to give a sign to the world that the American president’s goal is to work to eliminate nuclear wars in the future.

Last week, Russia and the United States signed an agreement to reduce nuclear arms. This was an important event. However, we are not naïve: no one person or country can stop nuclear warfare. In Japan, we live with the constant threat from our nuclear-armed neighbor North Korea. There are reports of other countries acquiring nuclear technology, too. For there to be any hope of peace, people around the world must add their voices to President Obama’s.

If Mr. Obama could walk across the Peace Bridge in Hiroshima — whose balustrades were designed by the Japanese-American sculptor Isamu Noguchi as a reminder both of his ties to East

* Miyake was born 22 April 1938 in Hiroshima, Japan. As a seven year-old, he witnessed and survived the nuclear bomb dropped on Hiroshima on August 6, 1945. He studied graphic design at the Tama Art University in Tokyo, graduating in 1964. After graduation, he worked in Paris and New York City. Returning to Tokyo in 1970, he founded the Miyake Design Studio.

and West and of what humans do to one another out of hatred — it would be both a real and a symbolic step toward creating a world that knows no fear of nuclear threat. Every step taken is another step closer to world peace.

Issey Miyake is a clothing designer. This article was translated by members of his staff from the Japanese.

Commentary

What should be the role of a *hibakusha* (the survivors of the atomic bombs dropped by the United States over Hiroshima and Nagasaki 6 and 9 de August 1945, respectively)?

That is the question posed by Miyake who has been silent until now. The horror he himself suffered in Hiroshima moved him to declare in public what he lives with every day in private.

Why confess now that he is a *hibakusha*? He says that before he refused to be known as “the designer who survived the atomic bomb.” And now, why?

He stresses that the matter of nuclear weapons should be discussed openly. What’s more, the position laid out by President Obama on this question should be supported and we should all promote a world without nuclear weapons. Is it achievable?

What is the point of some one like Miyake coming out in favor of the elimination of those instruments of mass destruction? Does not the world face other, more pressing problems and threats? Do you know anyone who loses sleep thinking about nuclear destruction? And hunger and poverty and the lack of drinkable water?